

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR ·	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,326	12/13/2001	Chongying Xu	ATMI - 515	2946
25559 75	590 05/25/2005		EXAMINER	
ATMI, INC.			MANOHARAN, VIRGINIA	
7 COMMERCE	·=		Annual	DAREN MUR CHER
DANBURY, CT 06810			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/015,326	XU ET AL.				
Office Action Summary	Examiner	Art Unit				
	Virginia Manoharan	1764				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 28 February 2005.						
2a)⊠ This action is FINAL . 2b)□ This	This action is FINAL . 2b) ☐ This action is non-final.					
3) Since this application is in condition for allowar	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1,3-7,9-19 and 21</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1, 3-7 and 9-17</u> is/are rejected.	6)⊠ Claim(s) <u>1, 3-7 and 9-17</u> is/are rejected.					
7) Claim(s) <u>18,19 and 21</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9) The specification is objected to by the Examiner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail Da					

Application/Control Number: 10/015,326

Art Unit: 1764

DETAILED ACTION

Claims 10 & 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 18 and 19 are rejected for the same reasons as set forth at section (a) page 2, of the previous Office Action. Since applicants did not address this rejection it is assumed they are acquiescing therein.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-7, 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McEntee (4,127,598) and Tsukuno et al (5,312, 947).

The above references are applied for the same combined reasons as set forth at page 3, first two paragraphs of the previous Office Action.

Claims 18-19 & 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed February 28, 2005 have been fully considered but they are not persuasive.

Applicant following argument such as:

Art Unit: 1764

The McEntee reference "discloses removal of <u>non-acidic and non-basic</u> <u>impurities</u>, such as <u>biphenyls</u>, <u>chlorinated biphenyls</u>, <u>vinyl chloride</u>, <u>carbon tetrachloride</u>, <u>and aromatic hydrocarbon impurities</u> (see McEntee, column 4, lines 39-50), from impure silanes and siloxanes, which include cyclosiloxanes.." and "..The Tsukuno reference only suggest removal of <u>ionic crystal</u>, which are either organic or inorganic salts that <u>are non-acidic and non-basic</u>, and water, which is also <u>non-acidic and non-basic</u>, from a siloxanes crude product (see Tsukuno, column 2, lines 15-17 and 51-54),,,,' ' are not persuasive of patentability because of the following reasons:

However, the process or method of McEntee and Tsukuno are not distinguished from the prior art based on the acidic and/or basic impurities. The impurities are directed to materials or fluid – in – process- which are not the basis for patentability of a process claim. Nonetheless, it is known to produce acidic by –products as impurities. Tsukuno at col. 2, lines 23-27 for e.g., suggests that "Where various organochlorosilanes alone or in ad-mixture of two or more are converted through hydrolysis into cyclic, linear or branched organopolysloxanes, the hydrolysis entails hydrochloric acid as a by-product."

Thus, McEntee impurities such as biphenyls, chlorinated bipheryls, vinyl chloride and etc., and Tsukuno ionic crystals impurities, like the claimed acidic and basic impurities, must obvilously all be removed so as to ensure efficient siloxane purification. The instant method or process of removing the impurities such as, for example, by adsorption and distillation is the same process taught in the prior art. Applicants fail to delineate any process steps not shown nor render obvious by the prior art. Moreover,

Application/Control Number: 10/015,326

Art Unit: 1764

an artisan knows that the step of distillation would naturally or inherently removed any acidic or basic impurities, if present, since distillation is a physical unit of operation based on boiling point characteristic that does not involve any chemical reaction. Furthermore, McEntee is not limited to the binephyls and chlorinated biphenyls but suggests removing other impurities from the streams of silanes or siloxanes. See col. 4, lines 39-43. The ionic crystals of Tsnkuno appear to include basic materials. Note col. 3, lines 52-68. Tsunkuno also suggests removing water from the siloxanes. See e.g., col. 8, lines 25-33.

Thus, a prima facie case of obviousness is reasonably established by the prior art and has not been rebutted.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Page 5

Application/Control Number: 10/015,326

Art Unit: 1764

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Virginia Manoharan whose telephone number is 571-

271-1450. The examiner can normally be reached on Tuesday-Friday from 7:30 am to

6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/af May 23, 2005

> /IRGINIA MANOHARAN PRIMARY EXAMINER

> > ART UNIT 133 / 764